WHAT IS CLAIMED IS:

1. An inhibitor to prevent, reduce, substantially reduce, or eliminate degradation of nucleic acid templates during nucleic acid synthesis.

2. The inhibitor of claim **1**, wherein said inhibitor has a net negative charge.

3. The inhibitor of claim **1**, wherein said inhibitor is not a ribonuclease inhibitor.

4. The inhibitor of claim **2**, wherein said inhibitor is not a protease.

5. The inhibitor of claim **2**, wherein said inhibitor is a chemical compound.

6. The inhibitor of claim **3**, wherein said inhibitor is one or more nucleotides.

7. The inhibitor of claim **6**, wherein said inhibitor interacts with or binds to a degradation component.

8. The inhibitor of claim **7**, wherein said degradation component is Mg^{++} or a salt thereof and said inhibitor is one or more nucleotides.

9. A composition for use in reverse transcription of a nucleic acid molecule, said composition comprising one or more inhibitors and one or more degradation components.

10. The composition of claim **8**, further comprising one or more polypeptides having reverse transcriptase activity.

11. The composition of claim **8**, wherein said polypeptides are reduced or substantially reduced or lacking in RNase H activity.

12. The composition of claim **8**, wherein said polypeptides are selected from the group comprising M-MLV reverse transcriptase, ASV reverse transcriptase, HIV reverse transcriptase, Avian Sarcoma-Leukosis Virus (ASLV) reverse transcriptase, Rous Sarcoma Virus (RSV) reverse transcriptase, Avian Myeloblastosis Virus (AMV) reverse transcriptase, Avian Erythroblastosis Virus (AEV) Helper Virus MCAV reverse transcriptase, Avian Myelocytomatosis Virus MC29 Helper Virus MCAV reverse transcriptase, Avian Reticuloendotheliosis Virus (REV-T) Helper Virus REV-A reverse transcriptase, Avian Sarcoma Virus UR2 Helper Virus UR2AV reverse transcriptase, Avian Sarcoma Virus Y73 Helper Virus YAV reverse transcriptase, Rous Associated Virus (RAV) reverse transcriptase, and Myeloblastosis Associated Virus (MAV) reverse transcriptase and derivatives, variants, or fragments having reverse transcriptase activity
or mutants thereof.

13. A method for reverse transcription of one or more nucleic acid molecules comprising:

(a) mixing one or more nucleic acid templates with one or more inhibitors and one or more polypeptides having reverse transcriptase activity; and

(b) incubating mixture of (a) under conditions sufficient to make one or more first nucleic acid molecules complementary to all or a portion of said one or more templates.

14. The method of claim **14**, wherein said nucleic acid template is a messenger RNA molecule, a poly A^+ RNA molecule, or a population of mRNA molecules.

15. The method of claim **14**, wherein said mixture is incubated at temperatures ranging from 40°C to 75°C.

16. The method of claim **14**, said method further comprising incubating said one or more first nucleic acid molecules under conditions sufficient to make one or more second nucleic acid molecules complementary to all or a portion of said one or more first nucleic acid molecules.

17. A cDNA molecule made according to the method of claim **14**.

18. A cDNA molecule made according to the method of claim **17**.

19. A method for amplifying one or more nucleic acid molecules, said method comprising:

(a) mixing one or more nucleic acid templates with one or more inhibitors, one or more polypeptides having reverse transcription activity and one or more DNA polymerases; and

(b) incubating mixture of (a) under conditions sufficient to amplify one or more nucleic acid molecules complementary to all or a portion of said one or more templates.

20. A nucleic acid molecule amplified according to the method of claim **20**.

21. A kit for use in reverse transcription, amplification, or sequencing of a nucleic acid molecule, said kit comprising one or more inhibitors.

22. The kit of claim **21**, said kit further comprising one or more components selected from the group one or more nucleotides, one or more DNA polymerases, one or more buffers or buffering salts, one or more primers, one or more host cells, and one or more terminating agents.

23. A reaction mixture comprising:

(a) at least a 4000 micomolar concentration of one or more inhibitors; and

(b) one or more mRNA templates.

24. A composition comprising:

(a) at least a 4000 micomolar concentration of one or more inhibitors; and

(b) one or more mRNA templates.